



MEMORANDUM

CWS File #18-150

To: Ben Wade, CWCB

From: Michelle Hatcher *MH*, Sira Sartori *SS*

cc: Julie Pasillas, Town of Firestone

Date: August 8, 2019

Subject: 25% Progress Report for the Town of Firestone's Drought Management Plan

Clear Water Solutions (CWS) is assisting the Town of Firestone with developing a Drought Management Plan (DMP) in accordance with State regulations following the Guidance Document produced by the Colorado Water Conservation Board. The Guidance Document outlines eight tasks in the drought management planning process and the Town has completed Task 1 and Task 2. As discussed in the Scope of Work, this 25% Progress Report includes the following elements:

- The success of meeting previously identified goals and objectives
- Obstacles encountered
- Preliminary findings¹ or accomplishments
- Potential need for revisions to the scope of work and timelines

A kick-off meeting was held with Town Staff on February 11, 2019 to select a stakeholder group to participate in the DMP planning process as a Drought Planning Committee. The stakeholder group is composed of Town staff from various departments. During the first Drought Planning Committee meeting, held on June 2, 2019, we discussed plan objectives and principles, historical drought impact and assessed drought vulnerability with the stakeholders. The Committee developed objectives and operating principles for the DMP process, which remained the same as the Town's previous DMP in 2012 and include:

- Planning for droughts before they occur
- Identifying and determining severity of droughts given knowledge of Town water supply and use
- Outlining an approach for Town staff and decision makers to respond to a drought in an organized manner

A list of water use priorities was also developed during the first Committee meeting to provide guidance in the decision-making process. The water use priorities were established as follows:

1. Health and Safety (all indoor uses for all customer categories)

¹ Preliminary findings may be edited in the final DMP Update Report.

2. Outdoor public (Tier 1 parks and outdoor irrigation for schools)
3. Outdoor residential and low priority parks (Tier 2 parks)
4. Outdoor business (commercial and industrial)
5. Private outdoor areas (HOA irrigated areas)
6. Hydrant – New construction/dust control

The Committee moved the Hydrant water use priority from the second priority (in the Town's previous 2012 DMP) to the sixth priority after some group discussion. The stakeholders concluded the dust control issue is minor in comparison to the early 2000s when there were a lot of vacant construction lots. Stakeholders also suggested mitigation strategies that will be discussed further at the next meeting to address dust control issues in the future.

The Operating Principles established in the 2012 DMP are still applicable and will be used in the DMP Update. The Committee participated in discussion about the historical drought impacts related to the Town's water supply, which are summarized in Table 1.

Table 1. Summary of historical drought impacts and severity.

Historical Impact	Severity
Loss of revenue from water sales	Moderate
Increased cost and staff time to deal with drought	Moderate
Reduced firefighting capacity	Moderate
Increased political conflict	Moderate
Increased dust storms from vacant lots	Minor
Heightened awareness of water conservation and re-evaluation of social values/priorities	Moderate

The Town's main potable water supply is derived from the Colorado-Big Thompson Project (C-BT). The C-BT system has approximately 740,000 acre-feet of gross storage and consists of 310,000 units. There is approximately 2.3 times the storage than would be needed to deliver a 100% quota. This gives the C-BT system some drought reliability. The C-BT system has an added advantage by diverting water from the West and East slope of Colorado. The system takes advantage of precipitation and snowpack occurring in several different areas, in case drought conditions are isolated to one region. However, the cost to acquire C-BT units has drastically increased since the 1990s, making it very costly to obtain additional units to add to the Town's water rights portfolio to accommodate for population growth. When the C-BT quota is 50% or 60%, the Town is at risk of drought conditions (depending on the carryover amount), such as in 2013 when the Town reached a critical drought stage. This is due to the demands in the Town nearing or exceeding the available water supply generated from its C-BT units. In 2018, the Town purchased water in the Windy Gap Project which uses much of the C-BT system for delivery.

An additional meeting was held with Town staff to review the water supply index (WSI) and drought triggers more thoroughly based on the historical WSI conditions. The next Drought Planning Committee meeting (meeting #2) is scheduled for July 17, 2019 to

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discuss drought vulnerability and drought mitigation and response strategies. A revised project schedule is provided in Table 2. No major obstacles have been encountered in the planning process to-date.

Table 2. Revised DMP Update timeline.

Task	Date
CWCB approves grant and PO issued	11/27/2019
Kick-Off Meeting with staff	2/11/2019
Drought Planning Committee Meeting #1	6/5/2019
Submit 25% progress report to CWCB	8/6/2019
Drought Planning Committee Meeting #2	7/17/2019
Submit 50% progress report to CWCB	8/6/2019
Submit 75% progress report to CWCB	8/16/2019
Submit draft plan to staff for review and comment	9/6/2019
Drought Planning Committee Meeting #3 (optional)	9/20/2019
Present draft report at Town Board Meeting	10/9/2019
Notify public of draft plan in paper and website	10/11/2019
Public review period (60 days) end date	12/11/2019
Town Board formally adopts final report	1/8/2020
CWS submits final report to CWCB	1/9/2020
CWCB approves final report	up to 90 days

Note: proposed dates are in blue.